

Comments regarding
Dietary Guidelines for Americans

Submitted to the
Dietary Guidelines Advisory Committee,
U.S. Department of Health and Human Services, and
U.S. Department of Agriculture

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The Center for Science in the Public Interest (CSPI) respectfully submits to the Dietary Guidelines Advisory Committee (DGAC), the U.S. Department of Health and Human Services (DHHS), and the U.S. Department of Agriculture (USDA) recommendations regarding the bulletin *Nutrition and Health: Dietary Guidelines for Americans*.

CSPI is a non-profit consumer education and advocacy organization that since 1971 has been working to improve the public's health through better nutrition and safer food. CSPI's work is supported primarily by its 800,000 members and subscribers to its *Nutrition Action Healthletter*, the nation's largest circulation health newsletter. CSPI does not accept any government or corporate funding.

CSPI's work was instrumental in passage of the Nutrition Labeling and Education Act of 1990 and the Alcoholic Beverage Labeling Act of 1988. Other initiatives include studies of the nutritional quality of restaurant foods, advocating trans fat labeling on packaged foods, and campaigns to promote low-fat milk consumption, improve school foods, stop misleading food and alcohol advertising, enforce food safety laws, and improve alcoholic-beverage labeling.

Enclosed are eight sets of comments regarding the following guidelines:

- Nutrient Adequacy
- Sodium
- Fibers
- Whole Grains
- Added Sugars
- Energy Balance
- Fatty Acids
- Restaurant Foods
- Food Dyes and Behavior
- Ethanol

Our comments are summarized in the oral testimony which will be presented to the committee on January 29, 2009, which is enclosed.

For more information or questions regarding these comments please contact Alexandra Lewin, Ph.D. at 202.777.8351 or alewin@cspinet.org.

Comments by the Center for Science in the Public Interest on Restaurant Foods

The Dietary Guidelines Advisory Committee should strongly encourage the USDA and HHS to develop a separate guideline to give Americans advice about eating out or strongly emphasize throughout the *Dietary Guidelines for Americans* the importance of following the advice of the *Guidelines* when eating out. Americans are eating out more than ever before and restaurant foods are often served in large portions and have large amounts of saturated fat, sodium, and added sugars (especially in beverages) and have limited choices of fruits, vegetables, and whole grains. This is especially important advice for the guidelines regarding weight management, fats, food groups to encourage, carbohydrates, sodium, and alcohol.

I. The *Dietary Guidelines* should emphasize that about one-third of the average American's diet is consumed away from home.

Americans are increasingly relying on restaurants to feed themselves and their families. In 1970, Americans spent just 26% of their food dollars on restaurant meals and other foods prepared outside their homes.⁹⁷ Today, we spend almost half (46%) of our food dollars on away-from-home foods.⁹⁸ American adults and children consume about one-third of their calories from restaurants and other food-service establishments.⁹⁹

II. Restaurant food portions commonly are large and caloric content is typically higher than food consumed at home.

Americans are eating more calories than two decades ago, which may be due in part to increases in eating out. Studies link eating out with higher caloric intakes and higher body weights or fatness (see Appendix A for a summary of studies).^{100,101,102,103,104,105,106} Children eat almost twice as many calories when they eat a meal at a restaurant (770 calories) compared to a meal at home (420 calories).¹⁰⁷ Women who eat out more often (more than 5 times a week) consume about 290 more calories on average *each day* than women who eat out less often.¹⁰⁸ Furthermore, eating more fast-food meals is linked to eating more calories, more saturated fat, fewer fruits and vegetables, and less milk.^{109,110,111,112,113,114}

Foods that people eat from restaurants and other food-service establishments are generally higher in calories than home-prepared foods.^{115,116,117,118} It is not uncommon for a restaurant entree to provide half of a day's recommended calories.¹¹⁹ Include an appetizer, beverage *or* dessert, and it is easy to consume a whole day's calories in a single meal.

No one would mistake cheese fries with ranch dressing for a health food, but few would guess that a typical serving uses up one-and-a-half-day's worth of calories (3,010

calories). A large milk shake from McDonald's has over 1,100 calories, about a half a day's worth.

It is common for restaurants to serve two to three times more than what is considered a standard serving size. A Double Gulp from 7-Eleven contains six servings, meaning it provides six times as many calories as would a standard serving of soft drink. A porterhouse steak at a typical steak house restaurant weighs more than a pound; according to U.S. Department of Agriculture serving sizes, that is enough meat to serve a family of six.

Without nutrition information, consumers substantially underestimate the levels of calories found in many less healthful menu items.^{120,121} For instance, few people would guess that a smoked turkey sandwich (870 calories) at Chili's has more calories than a sirloin steak (690 calories), or that on the children's menu, an order of chicken crispers (600 calories) has more calories than the ribs (490 calories).

A representative, state-wide telephone poll in California found that few Californians are able to identify from among typical fast-food and other chain-restaurant menu items those with the fewest/most calories, salt, or fat.¹²² Not a single respondent answered all four questions correctly. Less than 1 percent answered three of four questions correctly, only 5 percent answered two of the four questions correctly, and nearly 68 percent were unable to answer even one question correctly. Scores were equally poor regardless of education or income levels. Analogous results were found from a similar state-wide poll in Connecticut.¹²³

One study demonstrated that even trained nutrition professionals cannot accurately estimate the calorie content of typical restaurant meals.¹²⁴ They consistently underestimated the calories, and their estimations were off by large amounts – by 200 to 600 calories. For example, when shown a typical meal of a dinner-house hamburger and onion rings, the dietitians, on average, estimated that they had 865 calories, when they actually had 1,550 calories.

III. The Guidelines should provide tips about how to make healthier, lower-calorie choices in restaurants.

We urge the committee to carefully review the data regarding restaurant foods, including from CSPI's book, *Restaurant Confidential*.¹²⁵ The calorie, fat, saturated fat, trans fat, cholesterol, sodium, and added sugars contents of restaurant foods often dwarf those on most Nutrition Facts labels, because many restaurant foods are both high in those constituents and served in large portions. For the *Dietary Guidelines* to be useful, it needs to give practical advice for eating in restaurants and other food service establishments.

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- 1 Appel LJ, et. al. Effects of protein, monounsaturated fat, and carbohydrate intake on blood pressure and serum lipids: results of the OmniHeart randomized trial. *JAMA*. 2005 Nov 16;294(19):2455-64.
- 2 Jacobson, MF. Six Arguments for a Greener Diet. Washington, DC (Center for Science in the Public Interest). 2006.
- 3 21 CFR 101.14 (e) (6)
- 4 Nutrition Action Healthletter June 2008, page 1.
- 5 *Cancer*. 2008 Jul 1;113(1):150-7.
- 6 *Cochrane Database Syst Rev*. 2008 Apr 16;(2):CD007176.
- 7 *Nutr Clin Pract*. 2008 Oct-Nov;23(5):468-76.
- 8 *J Natl Cancer Inst*. 2009 Jan 7;101(1):14-23.; *JAMA*. 2008 Nov 12;300(18):2123-33.
- 9 *Cochrane Database Syst Rev*. 2008 Apr 16;(2):CD007176.
- 10 *Curr Atheroscler Rep*. 2008 Dec;10(6):503-9
- 11 *Heart*. 2006 Feb;92(2):166-9.
- 12 Fields LE, Burt VL, Cutler JA, et al. The burden of adult hypertension in the United States 1999 to 2000: a rising tide. *Hypertension*. 2004; 44:398-404.
- 13 Chobanian AV, Bakris GL, Black HR, et al. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *JAMA*. 2003; 289:2560-72. National Heart, Lung, and Blood Institute. NHLBI issues new high blood pressure clinical practice guidelines. News release. May 14, 2003.
- 14 Vasan RS, Beiser A, Shisadri S. Residual lifetime risk for developing hypertension in middle-aged women and men. *JAMA*. 2002; 287:1003-10.
- 15 National Center for Health Statistics. *Health, United states, 2004, With Chartbook on Trends in the Health of Americans*. Hyattsville, MD, 2004.
- 16 Zhou BF, Stamler J, Dennis B, et al. Nutrient intakes of middle-aged men and women in China, Japan, United Kingdom, and United States in the late 1990s: The INTERMAP study. *J Hum Hypertens*. 2003; 17:623–30. Kumanyika SK, Cook NR, Cutler JA, et al. Sodium reduction for hypertension prevention in overweight adults: further results from the Trials of Hypertension Prevention Phase II. *J Hum Hypertens*. 2005; 19:33–45.
- 17 Havas, S, Rocella EJ, Lenfant C. Reducing the public health burden from elevated blood pressure levels in the United States by lowering intake of dietary sodium. *Am J Pub Health*. 2004; 94:19-22. Other studies, when extrapolated to the United States, also indicate that halving sodium would save 100,000 to 200,000 lives per year: He FJ, MacGregor GA. How far should salt intake be reduced? *Hypertension*. 2003; 42:1093–9. (CSPI averaged the percentage reductions based on systolic and diastolic blood pressures.)

Tuomilehto J, Jousilahti P, Rastenyte D, et al. Urinary sodium excretion and cardiovascular mortality in Finland: a prospective study. *Lancet*. 2001;357:848–51.

18 Palar, K, Sturm, R. The Benefits of Reducing Sodium Consumption in the US Adult Population. Rand Health, Academy Health Annual Research Meeting Presentation, June 9, 2008.

19 Jacobson MF. Sodium content of processed foods: 1983–2004. *Am J Clin Nutr*. 2005;81:941a-2a.

20 Chobanian AV, Bakris GL, Black HR, et al. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *JAMA*. 2003; 289:2560-72.

21 Cook NR, Cutler JA, Obarzanek E, et al. Long-term effects of dietary sodium reduction on cardiovascular disease outcomes: Observational follow-up of the trials of hypertension prevention (TOHP). *BMJ*. 2007; 334: 885-93.

22 Tzemos N, et al. Adverse cardiovascular effects of acute salt loading in young normotensive individuals. *Hypertension*. 2008 Jun;51(6):1525-30.

23 Chang HY, Hu YW, Yue CS, et al. Effect of potassium-enriched salt on cardiovascular mortality and medical expenses of elderly men. *Am J Clin Nutr*. 2006 Jun;83(6):1289-96.

24 Labarthe, D. (2009, January). Presentation at the IOM Meeting on Strategies to Reduce Sodium Intake, Washington, D.C.

25 Institute of Medicine: “Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate.” Washington DC: National Academy Press, p 271, 2004.

26 Institute of Medicine: “Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate.” Washington DC: National Academy Press, p 307, 2004.

27 NHANES, 2001-02. “What We Eat in America.” <http://www.ars.usda.gov/foodsurvey>

28 Feng J. He; Graham A. MacGregor. Importance of Salt in Determining Blood Pressure in Children. *Hypertension*. 2006; 48:861.

29 Wootan M, Batada A, Marchlewicz E. Kids Meals: Obesity on the Menu. Center for Science in the Public Interest: Washington, D.C.; 2008.

30 Jacobson MF, Hurley J. Restaurant Confidential. New York: Workman, 2002.

31 Mattes RD, Donnelly D. Relative contributions of dietary sodium sources. *J Am Coll Nutr*. 1991;10:383–93.

32 The actual level is probably close to 4,000 mg. Zhou BF, Stamler J, Dennis B, et al. Nutrient intakes of middle-aged men and women in China, Japan, United Kingdom, and United States in the late 1990s: The INTERMAP study. *J Hum Hypertens*. 2003; 17:623–30. Kumanyika SK, Cook NR, Cutler JA, et al. Sodium reduction for hypertension prevention in overweight adults: further results from the Trials of Hypertension Prevention Phase II. *J Hum Hypertens*. 2005;19:33–45.

33 Grabske HA, Slavin JL. Low-digestible carbohydrates in practice. *J Am Diet Assoc*. 2008 Oct;108(10):1677-81.

34 Food and Nutrition Board. Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids (National Academies Press, Washington, DC) 2005. p. 362.

-
- 35 Elaine Wong, "Fiber Being Pitched As Tasty, Sexy Even." *Brandweek*. Jan. 17, 2009.
- 36 Home and Garden Bulletin No. 252. USDA. Aug. 1992, slightly revised Oct. 1996. p. 17.
- 37 WHO-FAO. Diet, Nutrition and the Prevention of Chronic Diseases. WHO Technical Report Series 916. 2003 (www.fao.org/docrep/005/AC911E/AC911E00.HTM (accessed Jan. 10, 2009)).
- 38 Dietary Guidelines for Americans. www.health.gov/dietaryguidelines/dga2005/document/html/appendixA.htm (accessed Jan. 19, 2009). Appendix A-3.
- 39 Letter to Secretary Tommy Thompson, April 15, 2003.
- 40 Melanson KJ, Angelopoulos TJ, Nguyen V, et al. High-fructose corn syrup, energy intake, and appetite regulation. *Am J Clin Nutr*. 2008;88(suppl):1738S-44S.
- 41 Bray GA. How bad is fructose? *Am J. Clin Nutr*. 2007;86:895-6.
- 42 Havel PJ. Dietary fructose: implications for dysregulation of energy homeostasis and lipid/carbohydrate metabolism. *Nutr Rev*. 2005;63:133-57.
- 43 Stanhope KL, Havel PJ. Endocrine and metabolic effects of consuming beverages sweetened with fructose, glucose, sucrose, or high-fructose corn syrup. *Am J Clin Nutr*. 2008 Dec;88(6):1733S-7S.
- 44 ERS production data for HFCS-42 and HFCS-55, which the Corn Refiners Association says account for virtually all HFCS and crystalline fructose, indicate that the weighted-average sugar content of HFCS is almost exactly 50% glucose and 50% fructose. (HFCS-42: 3,660 (1,000 short tons, dry weight); HFCS-55: 5479 (1,000 short tons, dry weight))
- 45 Some products are sweetened with pure fructose (and sometimes bear labels claiming "No HFCS").
- 46 CSPI petition to FDA. July 13, 2005. www.cspinet.org/new/pdf/final_soda_petition.pdf.
- 47 Analyses by Environ. Calculations conducted in September 1998 for the Center for Science in the Public Interest by Environ, Inc., Arlington, Va., based on USDA CSFII 1994-96 Data Tables.
- 48 Giammattei J, Blix G, Marshak HH, et al. Television watching and soft drink consumption. *Arch Pediatr Adolesc Med*. 2003;157:882-6.
- 49 Troiano RP, Briefel RR, Carroll MD, Bialostosky K. Energy and fat intakes of children and adolescents in the United States: data from the National Health and Nutrition Examination Surveys. *Am J Clin Nutr*. 2000;72(suppl):1343S-53S.
- 50 Ludwig DS, Peterson KE, Gortmaker SL. Relationship between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *Lancet*. 2001;357:505-8.
- 51 Berkey CS, Rockett HR, Field AE, et al. Sugar-added beverages and adolescent weight change. *Obes Res*. 2004;12:778-88.
- 52 Some of the same researchers subsequently found that weight gain in the same cohort of children was also associated with milk consumption. Berkey CS, Rockett HRH, Willett WC, et al. Milk, dairy fat, dietary calcium, and weight gain. *Arch Pediatr Adolesc Med*. 2005;159:543-550.
- 53 Schulze MB, Manson JE, Ludwig DS, et al. Sugar-sweetened beverages, weight gain, and incidence of type 2 diabetes in young and middle-aged women. *JAMA*. 2004;292:927-34.

54 Apovian CM. Sugar-sweetened soft drinks, obesity, and type 2 diabetes. *JAMA*. 2004;292:978-9.

55 Palmer JR, Boggs DA, Boggs MS, et al. Sugar-sweetened beverages and incidence of type 2 diabetes mellitus in African American women. *Arch Intern Med*. 2008;168:1487-92.

56 James J, Thomas P, Cavan D, et al. Preventing childhood obesity by reducing consumption of carbonated drinks: cluster randomized controlled trial. *BMJ*. 2004;328:1237.

57 Raben A, Vasilaras TH, Møller AC, et al. Sucrose compared with artificial sweeteners: different effects on ad libitum food intake and body weight after 10 wk of supplementation in overweight subjects. *Am J Clin Nutr*. 2002;76:721-9. An earlier, shorter study that compared soft drinks containing aspartame and high-fructose corn syrup found similar results. Tordoff MG, Alleva AM. Effect of drinking soda sweetened with aspartame or high-fructose corn syrup on food intake and body weight. *Am J Clin Nutr*. 1990;51:963-9.

58 Ebbeling CB, Feldman HA, Osganian SK, et al. Effects of decreasing sugar-sweetened beverage consumption on body weight in adolescents: a randomized, controlled pilot study. *Pediatrics*. 2006;117:673-80.

59 Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review. *Am J Clin Nutr*. 2006 Aug;84(2):274-88.

60 Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis. *Am J Pub Health*. 2007;97(4):667-75.

61 Striegel-Moore RH, Thompson D, Affenito SG, et al. Correlates of beverage intake in adolescent girls: the National Heart, Lung, and Blood Institute Growth and Health Study. *J Pediatr*. 2006;148:183-7.

62 Dietz WH. Sugar-sweetened beverages, milk intake, and obesity in children and adolescents. *J Pediatr*. 2006;148:185-7.

63 Van Dam RM, Seidell JC. Carbohydrate intake and obesity. *Eur J Clin Nutr*. 2007;61 (suppl 1):S75-S99.

64 Mann J, Cummings JH, Englyst HN, et al. FAO/WHO scientific update on carbohydrates in human nutrition: conclusions. *Eur J Clin Nutr*. 2007;61 (suppl 1):S132-S7.

65 Committee on Prevention of Obesity in Children and Youth, Institute of Medicine. Fact Sheet, Parents can play a role in preventing childhood obesity. Sept. 2004.

66 DiMeglio DP, Mattes RD. Liquid versus solid carbohydrate: effects on food intake and body weight. *Intern J. Obesity*. 2000;24:794-800.

67 DeCastro JM. The effects of spontaneous ingestion of particular food or beverages on the meal pattern and overall nutrient intake of humans. *Physiol Behav*. 1993;53:1133-44. Mattes RD. Dietary compensation by humans for supplemental energy provided as ethanol or carbohydrate in fluids. *Physiol Behav*. 1996;59:179-87. Rolls BJ, Kim S, Federoff IC. Effects of drinks with sucrose or aspartame on hunger, thirst and food intake in men. *Physiol Behav*. 1990;48:19-26.

68 2005 Dietary Guidelines Advisory Committee Report, Part D, Section 2, pp. 18-9.

69 Almiron-Roig E, Drewnowski A. Hunger, thirst, and energy intakes following consumption of caloric beverages. *Physiol Behav*.

2003;79:767-73. DellaValle DM, Roe LS, Rolls BJ. Does the consumption of caloric and non-caloric beverages with a meal affect energy intake? *Appetite*. 2005;44:187-93. Such clinical studies cannot evaluate whether the drinking of particular beverages (because of their cultural uses, sizes, or tastes) changes what solid foods a person eats.

70 Ventura KA, Loken E, Birch LL. Risk profiles for metabolic syndrome in a nonclinical sample of adolescent girls. *Pediatrics*. 2006;118:2434-42.

71 Yoo S, Nicklas T, Baranowski T, et al. Comparison of dietary intakes associated with metabolic syndrome risk factors in young adults: the Bogalusa Heart Study. *Am J Clin Nutr*. 2004;80:841-8.

72 Dhingra R, Sullivan L, Jacques PF, et al. Soft drink consumption and risk of developing cardiometabolic risk factors and the metabolic syndrome in middle-aged adults in the community. *Circulation*. 2007;116:480-8.

73 Palmer JR, Boggs DA, Boggs MS, et al. Sugar-sweetened beverages and incidence of type 2 diabetes mellitus in African American women. *Arch Intern Med*. 2008;168:1487-92.

74 Docket No. FDA-2008-N-0040

75 Tucker KL, Morita K, Qiao N, et al. Colas, but not other carbonated beverages, are associated with low bone mineral density in older women: The Framingham Osteoporosis Study. *Am J Clin Nutr*. 2006;84: 936-42. Whiting SJ, Healey A, Psiuk S. Relationship between carbonated and other low nutrient dense beverages and bone mineral content of adolescents. *Nutr Res*. 2001;21:1107-15. Wyshak, G. Teenaged girls, carbonated beverage consumption, and bone fractures. *Arch Pediatr Adolesc Med*. 2000;154:610-3.

76 Saldana TM, Basso O, Darden R, et al. Carbonated beverages and chronic kidney disease. *Epidemiology*. 2007;18:501-6.

77 Choi HK, Curhan G. Soft drinks, fructose consumption, and the risk of gout in men: prospective cohort study. *BMJ* published online Jan 31, 2008;doi:10.1136/bmj.39449.819271.BE [accessed Feb. 4, 2008].

78 Choi JW, Ford ES, Gao X, et al. Sugar-sweetened soft drinks, diet soft drinks, and serum uric acid level: the Third National Health and Nutrition Examination Survey. *Arthritis Rheum*. 2008;59(1):109-16.

79 Rolls BJ, et al. Changing the energy density of the diet as a strategy for weight management. *J Am Diet Assoc*. 2005 May;105(5 Suppl 1):S98-103.

80 Ello-Martin JA, et al. Dietary energy density in the treatment of obesity: a year-long trial comparing 2 weight-loss diets. *Am J Clin Nutr*. 2007 Jun;85(6):1465-77

81 Savage JS, et al. Dietary energy density predicts women's weight change over 6 y.

Am J Clin Nutr. 2008 Sep;88(3):677-84.

82<http://mypyramid.gov/STEPS/nutrientdensefoods.html>.

83 Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington, D.C.: National Academies Press, 2002.

84 American Heart Association. Heart and Stroke Statistics –2008 Update. Dallas, TX: American Heart Association, 2008. Accessed at

<http://www.americanheart.org/downloadable/heart/1200078608862HS_Stats%202008.final.pdf>

85 Clarke R. "Dietary lipids and blood cholesterol: quantitative meta-analysis of metabolic ward studies." *British Medical Journal* 1997, vol. 314, pp. 112-117.

-
- 86 Howell WH, et. al. "Plasma lipid and lipoprotein responses to dietary fat and cholesterol: a meta-analysis." *American Journal of Clinical Nutrition* 1997, vol. 65, pp. 1747-1764.
- 87 Armstrong ML, et. al. "Intimal thickening in normocholesterolemic rhesus monkeys fed low supplements of dietary cholesterol." *Circulation Research* 1974, vol. 34, pp. 447-454.
- 88 Walter Willett and Dariush Mozaffarian Ruminant or industrial sources of trans fatty acids: public health issue or food label skirmish? *Am. J. Clinical Nutrition*, Mar 2008; 87: 515 - 516.
- 89 CARDIOVASCULAR DISEASE RISK: Annie Motard-Bélanger, Amélie Charest, Geneviève Grenier, Paul Paquin, Yvan Chouinard, Simone Lemieux, Patrick Couture, and Benoît Lamarche. Study of the effect of trans fatty acids from ruminants on blood lipids and other risk factors for cardiovascular disease *Am. J. Clinical Nutrition*, Mar 2008; 87: 593 - 599.
- 90 Chardigny, Jet al Do trans fatty acids from industrially produced sources and from natural sources have the same effect on cardiovascular disease risk factors in healthy subjects? Results of the trans Fatty Acids Collaboration (TRANSFACT) study *Am. J. Clinical Nutrition*, Mar 2008; 87: 558 - 566.
- 91 The FDA permits such foods to contain less than 0.5 grams of trans fat per serving.
- 92 Some foods bragging "0g trans fat" contain substantial amounts of saturated fat.
93. 9 C.F.R. § 317.362 (e)(1)(2) (1998).
94. 59 Federal Register 26,916-26,917 (1994).
95. 9 C.F.R. § 317.362 (b)(6)(iv) (1998).
96. American Meat Institute. 2002 per capita disappearance data, personal communication, March 2004.
- 97 Lin B, Guthrie J, Frazao E. Away-From-Home Foods Increasingly Important to Quality of American Diet. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.
- 98 National Restaurant Association (NRA). "Industry at a Glance." Accessed at <http://www.restaurant.org/research/ind_glance.cfm> on April 12, 2002.
- 99 Lin B, Guthrie J, Frazao E. Away-From-Home Foods Increasingly Important to Quality of American Diet. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.
- 100 Zoumas-Morse C, Rock CL, Sobo EJ, Neuhouser ML. "Children's Patterns of Macronutrient Intake and Associations with Restaurant and Home Eating." *Journal of the American Dietetic Association* 2001, vol. 101, pp. 923-925.
- 101 Pereira, MA, et al. "Fast-Food Habits, Weight Gain, and Insulin Resistance (The CARDIA Study): 15-year Prospective Analysis." *Lancet* 2005, vol. 365, pp. 36-42.
- 102 Thompson OM, et al. "Food Purchased Away from Home as a Predictor of Change in BMI z-score among Girls." *International Journal of Obesity* 2004, vol. 28, pp. 282-289.
- 103 Binkley JK, et al. "The Relation between Dietary Change and Rising U.S. Obesity." *International Journal of Obesity* 2000, vol. 24, pp. 1032-1039.
- 104 Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American*

Journal of Public Health 1998, vol. 88, pp. 277-280.

105 McCrory MA, Fuss PJ, Saltzman E, Roberts SB. "Dietary Determinants of Energy Intake and Weight Regulation in Healthy Adults." *Journal of Nutrition* 2000, vol. 130 (Supplement), pp. 276S-279S.

106 McCrory MA, Fuss PJ, Hays NP, Vinken AG, Greenberg AS, Roberts SB. "Overeating in America: Associations between Restaurant Food Consumption and Body Fatness in Healthy Adult Men and Women Ages 19 to 80." *Obesity Research* 1999, vol. 7, pp. 564-571.

107 Zoumas-Morse C, Rock CL, Sobo EJ, Neuhauser ML. "Children's Patterns of Macronutrient Intake and Associations with Restaurant and Home Eating." *Journal of the American Dietetic Association* 2001, vol. 101, pp. 923-925.

108 Clemens LH, et al. "The Effect of Eating Out on Quality of Diet in Premenopausal Women." *Journal of the American Dietetic Association* 1999, vol. 99, pp. 422-444.

109 Schmidt M, et al. "Fast-Food Intake and Diet Quality in Black and White Girls." *Archives of Pediatric and Adolescent Medicine* 2004, vol. 159, pp. 626-631

110 S.A. Bowman and B.T. Vinyard. "Fast-Food Consumers vs. Non-Fast-Food Consumers: A Comparison of Their Energy Intakes, Diet Quality, and Overweight Status." *Journal of the American College of Nutrition* 2004, vol. 23, pp. 163-168.

111 S. Paeratakul, et al. "Fast-Food Consumption among U.S. Adults and Children: Dietary and Nutrient Intake Profile." *Journal of the American Dietetic Association* 2003, vol. 103, pp. 1332-1338.

112 Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American Journal of Public Health* 1998, vol. 88, pp. 277-280.

113 French SA, Story M, Neumark-Sztainer D, Fulkerson JA, Hannan P. "Fast Food Restaurant Use among Adolescents: Associations with Nutrient Intake, Food Choices and Behavioral and Psychosocial Variables." *International Journal of Obesity* 2001, vol. 25, pp. 1823-1833.

114 McNutt SW, Hu Y, Schreiber GB, Crawford PB, Obarzanek E, Mellin L. "A Longitudinal Study of the Dietary Practices of Black and White Girls 9 and 10 Years Old at Enrollment: The NHLBI Growth and Health Study." *Journal of Adolescent Health* 1997, vol. 20, pp. 27-37.

115 Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.

116 Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American Journal of Public Health* 1998, vol. 88, pp. 277-280.

117 Ma Y, Bertone ER, Stanek III EJ, Reed GW, Hebert JR, Cohen NL, Merriam PA, Ockene IS. "Association between Eating Patterns and Obesity in a Free-living US Adult Population." *American Journal of Epidemiology* 2003, vol. 158, pp. 85-92.

118 McCrory MA, Fuss PJ, Hays NP, Vinken AG, Greenberg AS, Roberts SB. "Overeating in America: Associations between Restaurant Food Consumption and Body Fatness in Healthy Adult Men and Women Ages 19 to 80." *Obesity Research* 1999, vol. 7, pp. 564-571.

119 Jacobson MF, Hurley JG. *Restaurant Confidential*. New York, NY: Workman Publishing, 2002.

120 Burton S, Creyer EH, Kees J, Huggins K. "Attacking the Obesity Epidemic: An Examination of the Potential Health Benefits of

Nutrition Information Provision in Restaurants.” American Journal of Public Health, 2006, forthcoming.

121 Johnson WG, Corrigan SA, Schlundt DG, Dubbert PM. “Dietary Restraint and Eating Behavior in the Natural Environment.” Addictive Behaviors 1990, vol. 15, pp. 285-290.

122 California Center for Public Health Advocacy. Statewide poll on March 20-31, 2007 conducted by Field Research Corporation of 523 registered California voters. Accessed at www.publichealthadvocacy.org/menulabelingpoll.html on June 20, 2007.

123 End Hunger Connecticut. State-wide poll conducted between April 17 and April 23, 2007 by the Center for Survey Research and Analysis at the University of Connecticut of 501 Connecticut residents. Accessed at www.endhungerct.org/PDF/pollresults.pdf on June 20, 2007.

124 Backstrand J, Wootan MG, Young LR, Hurley J. Fat Chance. Washington, DC: Center for Science in the Public Interest, 1997.

125 Jacobson MF, Hurley JG. Restaurant Confidential. New York, NY: Workman Publishing, 2002.

126 Schab DW, Trinh N-H T. Do artificial food colorings promote hyperactivity in children with hyperactive syndromes? A meta-analysis of double-blind placebo-controlled trials. J Dev Behav Pediatr. 2004;25:423-34.

127 Bateman B, Warner JO, Hutchinson E, et al. The effects of a double blind, placebo controlled, artificial food colourings and benzoate preservative challenge on hyperactivity in a general population sample of preschool children. Archives of Disease in Childhood. 2004;89:506-11. McCann D, Barrett A, Cooper A et al. Food additives and hyperactive behaviour in 3-year-old and 8/9-year-old children in the community: a randomized, double-blinded, placebo-controlled trial. Lancet. 2007(Nov 3);370:1560-7.

128 See www.cspinet.org/new/200806022.html.

129 UK Food Standards Agency. www.food.gov.uk/news/newsarchive/2007/sep/foodcolours.

130 Poulter S. Food firms junk danger additives. Daily Mail. Sept. 8, 2007.
www.dailymail.co.uk/pages/live/articles/news/news.html?in_article_id=480644&in_page_id=1770.

131 www.foodstandards.gov.uk/news/newsarchive/2007/sep/additivesboard.

132 www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0330+0+DOC+XML+V0//EN.

133 www.food.gov.uk/multimedia/pdfs/coloursletter.pdf.

134 Some dyes also have been shown to cause allergic somatic reactions.

135 R. Hingson and D. Kenkel, "Social and Health Consequences of Underage Drinking," in Reducing Underage Drinking: A Collective Responsibility, Background Papers (Washington, DC: The National Academies Press, 2004).

136 Grant, BF. Estimates of US children exposed to alcohol abuse and dependence in the family. American Journal of Public Health, Vol 90, Issue 1, pp.112-115.

137 Brown, S.A., and Tapert, S. F. Health consequences of adolescent alcohol involvement. In: National Research Council and Institute of Medicine, Bonnie, R.J., and O'Connell, M.E., eds. Reducing Underage Drinking: A Collective Responsibility. Washington, DC: National Academies Press, 2004. pp. 383-401.

138 Brown, Sandra A. et al. "A Developmental Perspective on Alcohol and Youths 16 to 20 Years of Age." Pediatrics Vol. 121 Supplement April 2008, pp. S290-S310.

139 Medina KL, Schweinsburg AD, Cohen-Zion M, Nagel BJ, & Tapert SF (2007). "Effects of alcohol and combined marijuana and alcohol use during adolescence on hippocampal volume and asymmetry." *Neurotoxicology & Teratology*, 29, 141-152.

140 Zeigler, Donald W. et al. "The neurocognitive effects of alcohol on adolescents and college students." *Preventive Medicine*, Volume 40, Issue 1, January 2005, Pages 23-32.

141 Table 2. Projections of the Population by Selected Age Groups and Sex for the United States: 2010 to 2050 (NP2008-T2). Source: Population Division, U.S. Census Bureau. Release Date: August 14, 2008.

142 NIAAA Alcohol Alert, No. 40, April 1998.

143 NIAAA Alcohol Alert, No. 74, January 2008.

144 See cited research in: Brody, Jane E. "Query for Aging Patients: How Much Do You Drink?" *New York Times*, Section D pg.7. December 16, 2008.

145 10th Special Report to Congress, pages 3, 240.